

# **Naval Strike Warfare Planning Center (NSWPC)**



## **Strike Planning Folder**

### **8 May 2000**



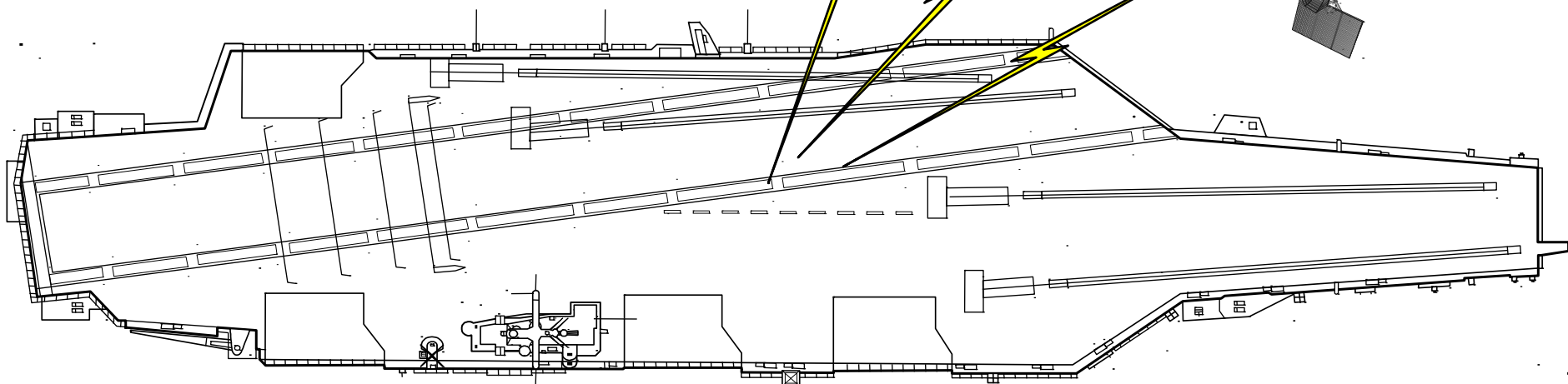
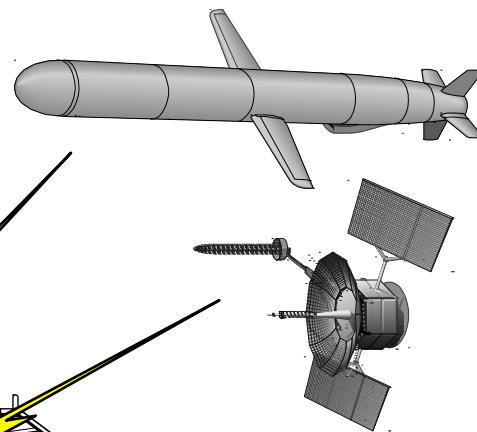
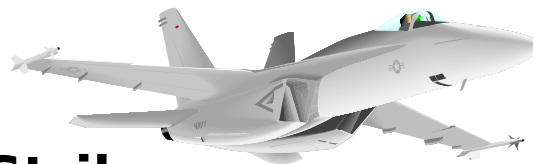
# Agenda

- **NSWPC Introduction & Background**
- **NSWPC Approach**
- **SPF Design**
- **SPF Development Schedule**
- **Summary**



# NSWPC Purpose

**Enhance CVBG  
TACAIR & Tomahawk Strike  
Warfare Capabilities  
By Integrating  
Planning & Intelligence  
Information systems**



**Allows Decision Makers to efficiently manage  
timely information**



# Enhance CVIC's Support to Navy Strike Planners

- **NSWPC improvements are designed to compress strike planning timeline**
  - **Improve information gathering and management capabilities**
  - **Enhance information flow**
  - **Integrate emerging fleet-preferred tools**
  - **Promote the sharing of detailed planning information and planning *products*,**
  - **Reduce duplication of effort**
- **Improve CVs ability to support Navy goals for sortie generation, surge operations, and employment of PGMs**
- **Augment integrated and collaborative planning capabilities**
  - **Improve ability to collaborate with other CVWs and other, fully modernized carriers**



# SCN Funding

- **Hardware purchase**
- **Integration of existing systems**
- **Integration of existing information**

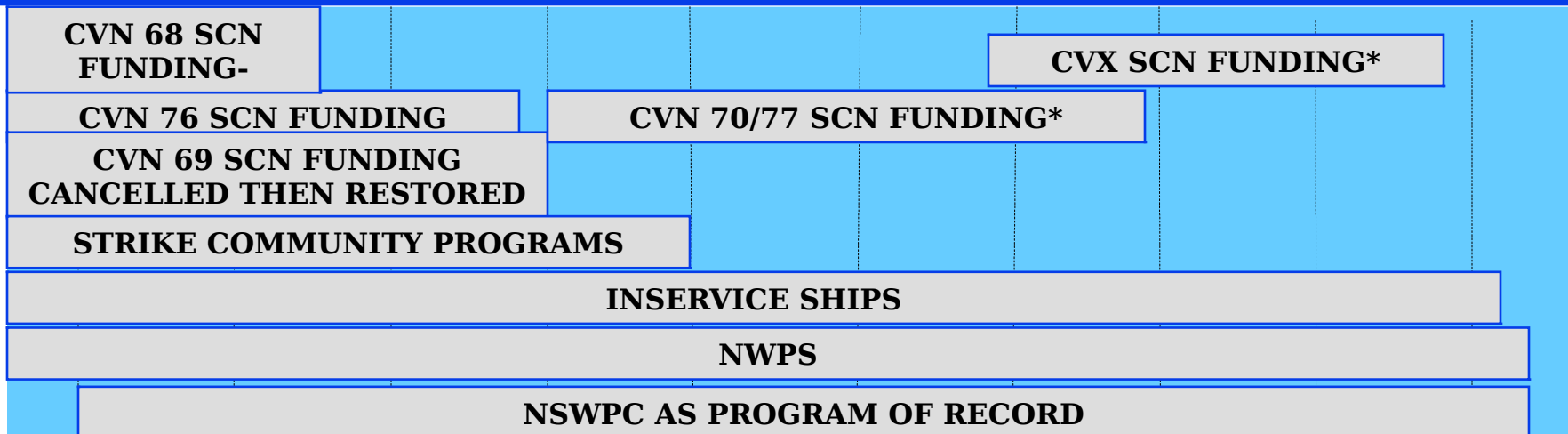


CVN 76

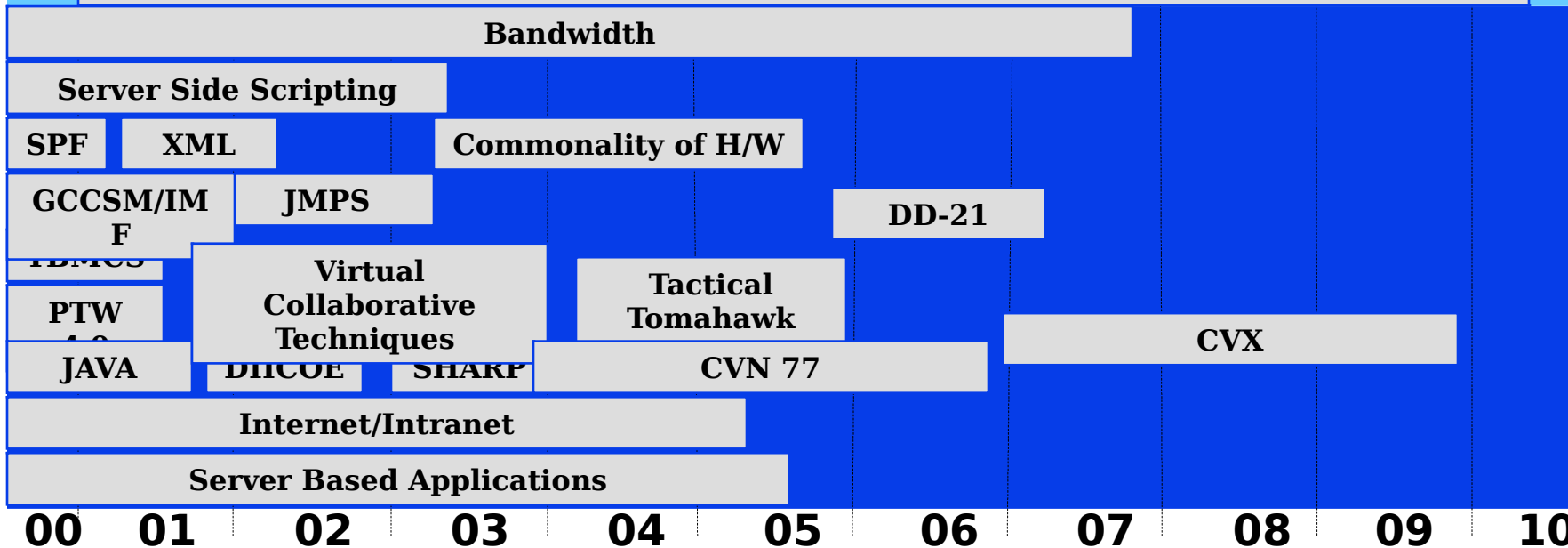


# NSWPC Drivers

Programmatic Drivers


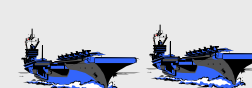




Technology Drivers





# NSWPC Integration Phased Approach

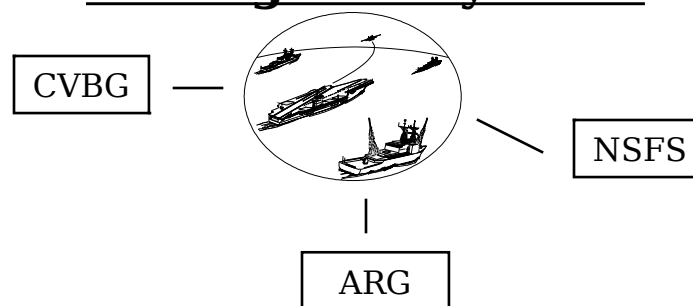
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	⇒
 <b>CVN 68</b> <b>NSWPC</b> <b>PHASE I</b> <b>CVIC</b> <b>INTEGRATION</b>		 <b>CVN 69/76</b> <b>NSWPC</b> <b>PHASE II</b> <b>COORDINATED OPS</b> <b>WITH EXTERNAL</b> <b>ORGANIZATIONS</b>			 <b>CVN 70/77</b> <b>NSWPC</b> <b>PHASE III</b> <b>JOINT INTEGRATED</b> <b>STRIKE PLANNING</b>			 <b>CVN 71/78</b> <b>CVNX</b> <b>TBD</b>		

## Strike Warfare

- SINGLE CVBG
- WITHIN CVN LIFELINES
- UNIT THROUGH "AP"
- FOCUS ON INFORMATION MANAGEMENT

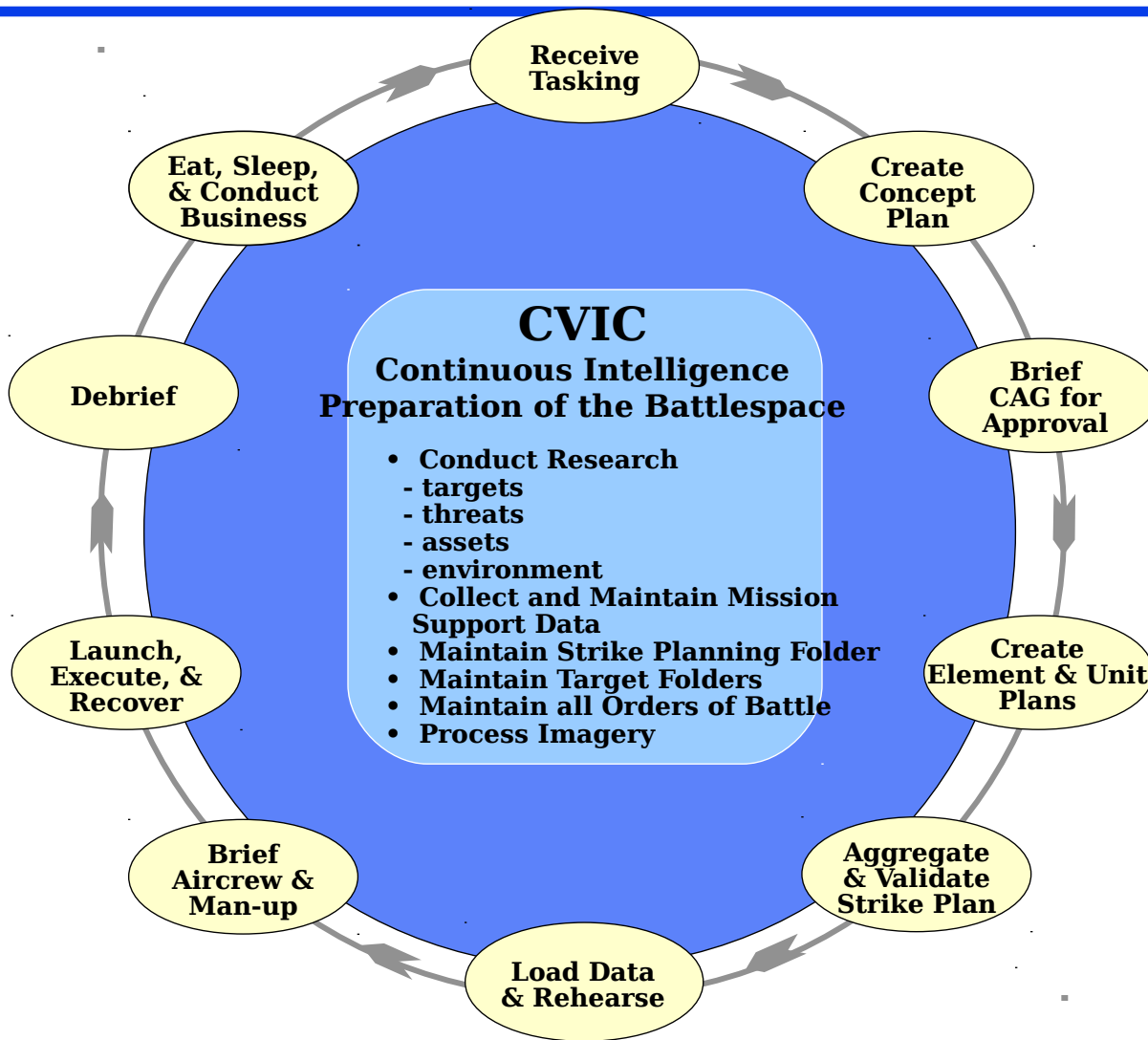
- MULTIPLE CVBG
- ACCOMPANYING ARG/MEU
- IN-THEATER AF UNITS
- FOCUS ON LIAISON AND COORDINATION WITH TASKERS AND OTHER THEATER UNITS

## Mission Planning, Rehearsal, Command and Control, Intelligence Systems





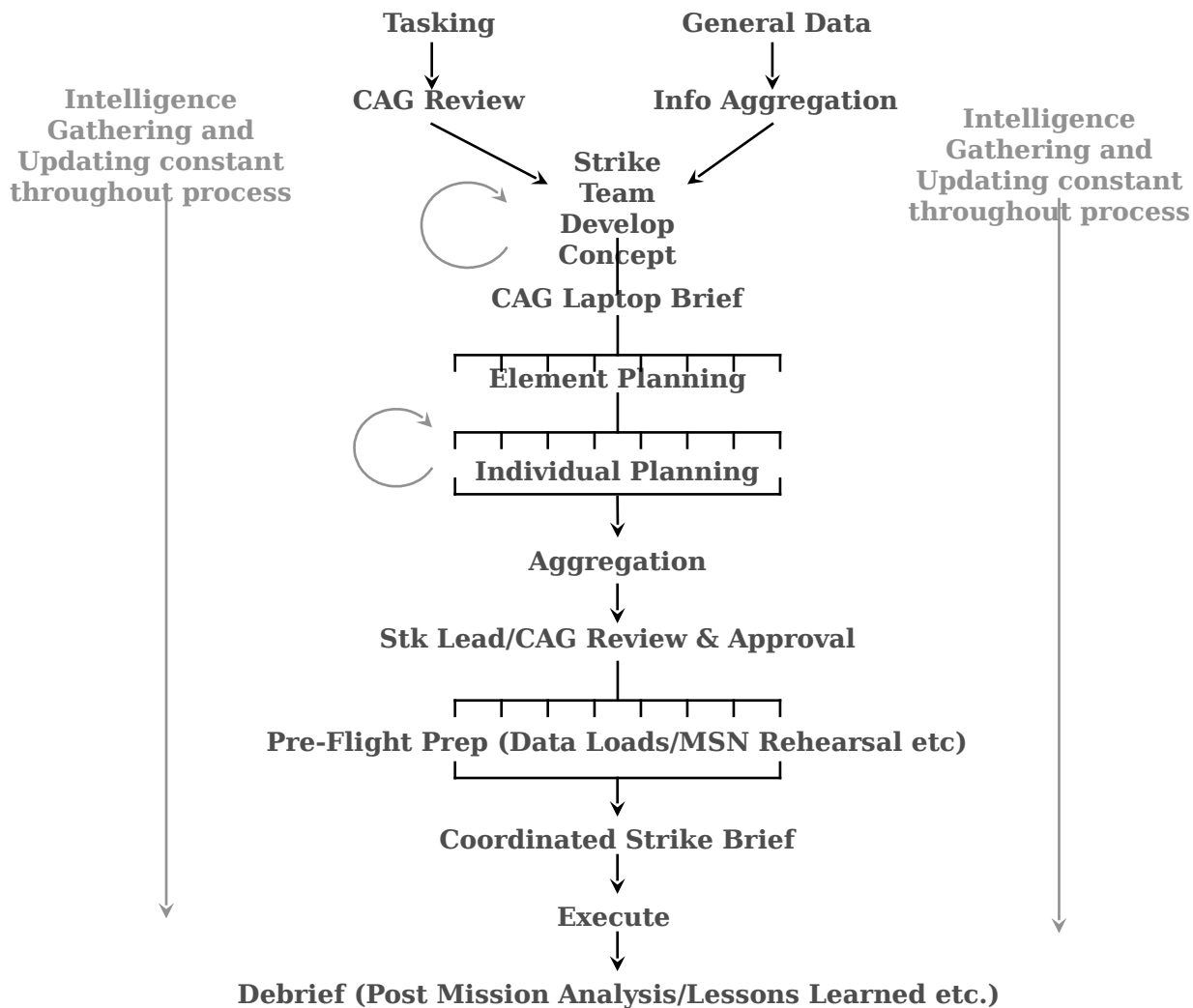
# NAVAL STRIKE and AIR WARFARE CENTER STRIKE PLANNING MODEL



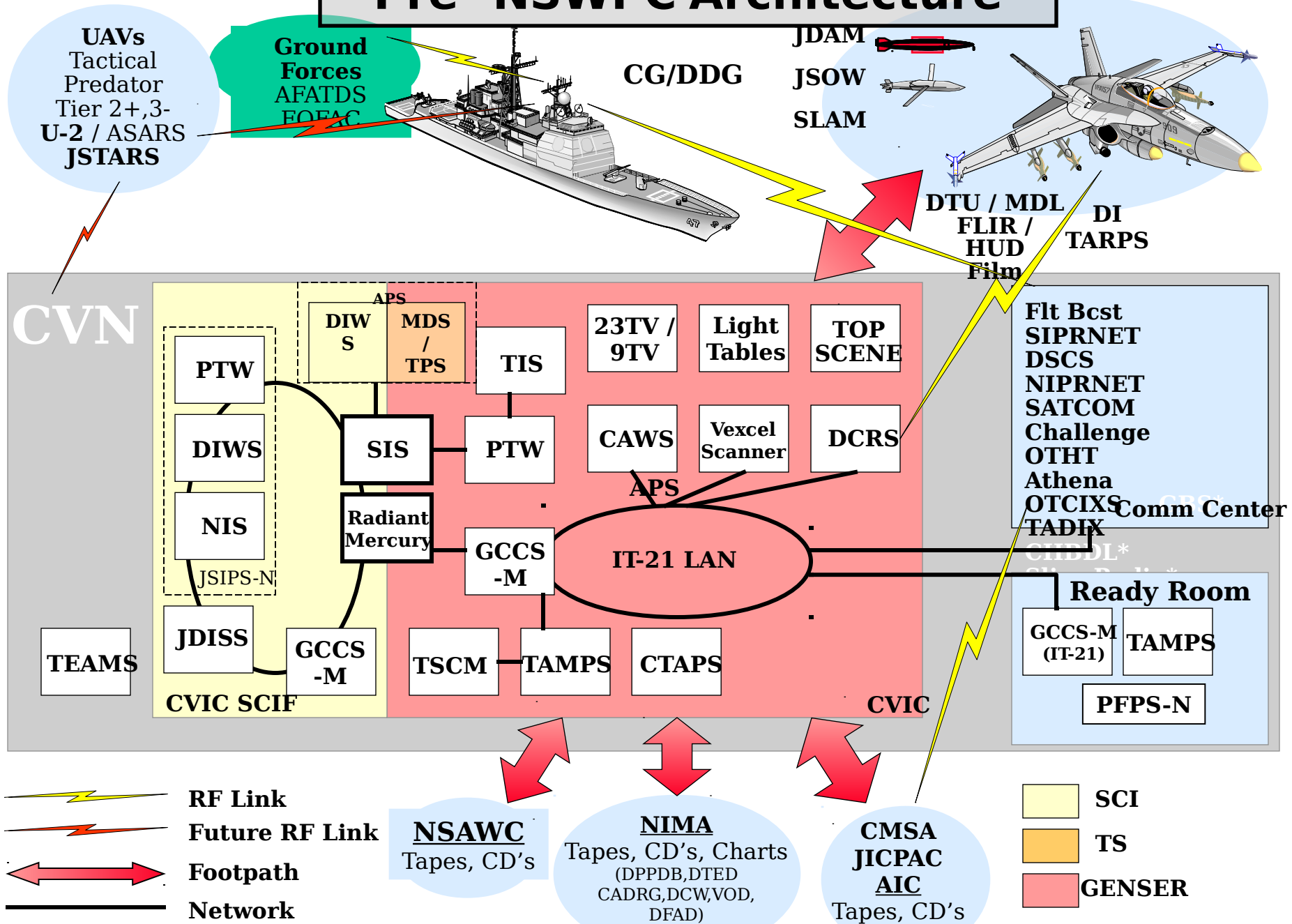




# NAVAL STRIKE and AIR WARFARE CENTER STRIKE PLANNING MODEL

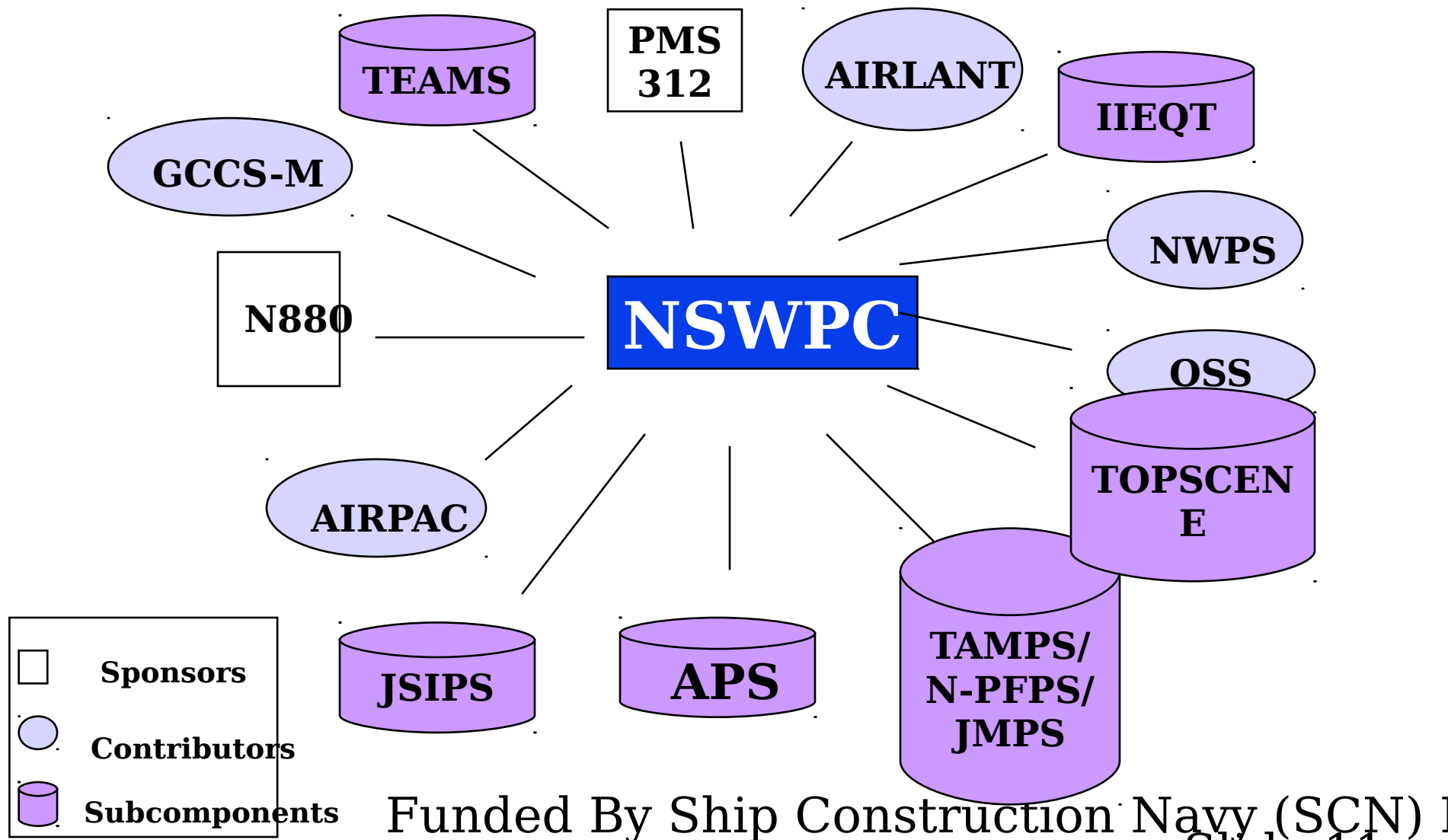


# Pre- NSWPC Architecture



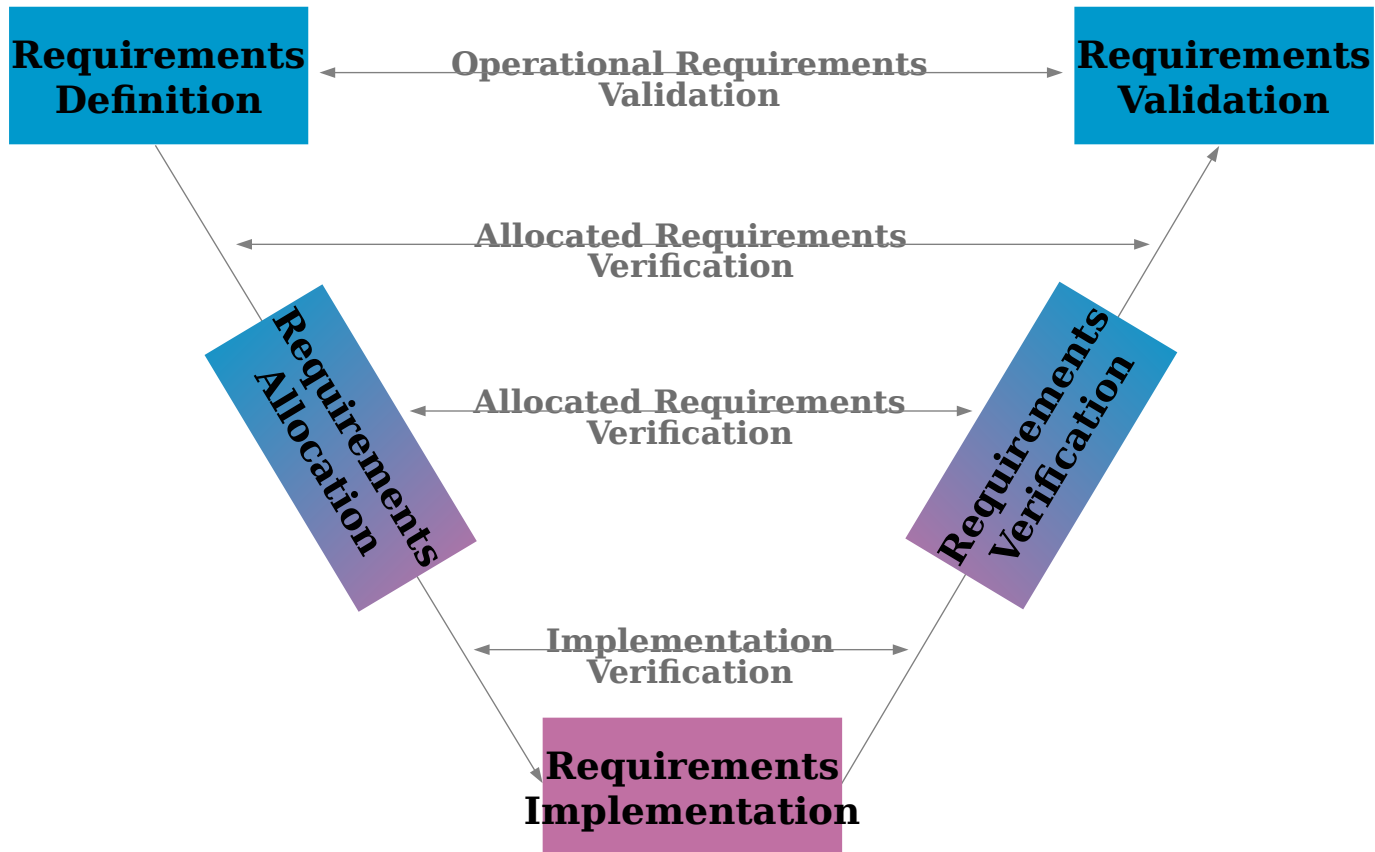


# NSWPC Participants



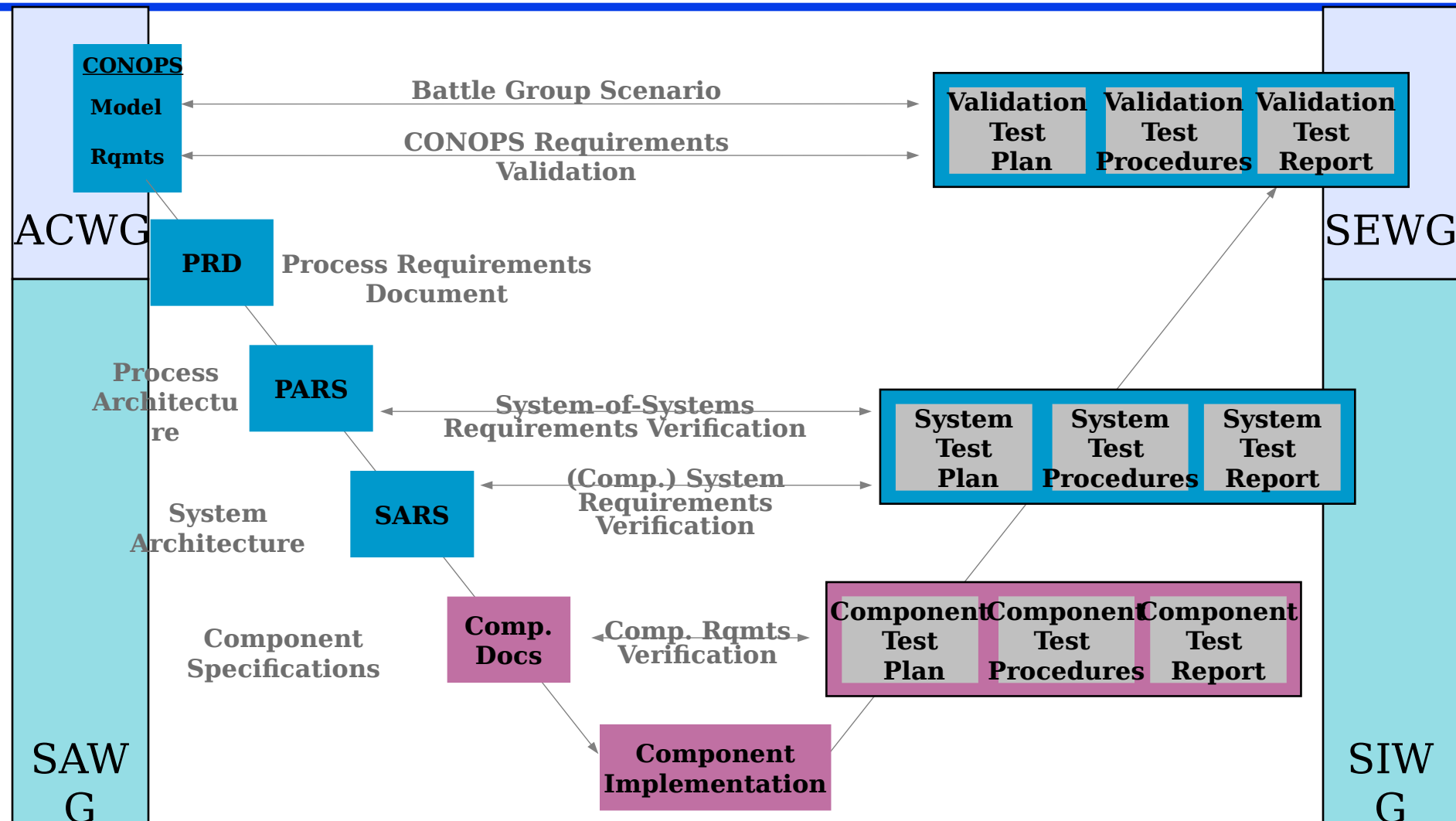


# APPROACH USING SYSTEMS ENGINEERING REQUIREMENTS PROCESS



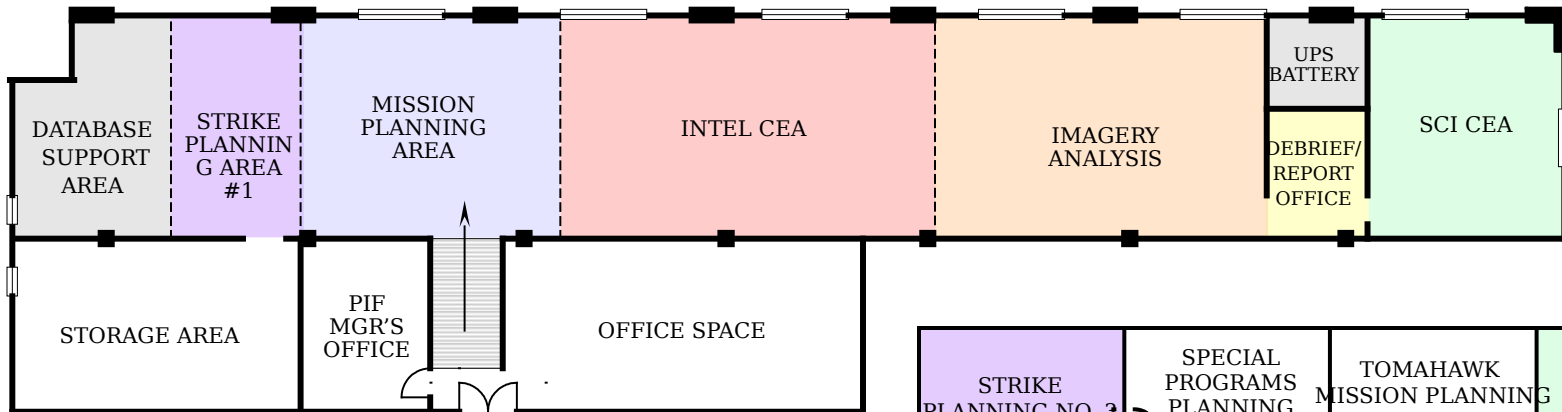


# NSWPC SYSTEMS ENGINEERING REQUIREMENTS PROCESS





# NSWPC PIF and the CVN-68 CVIC

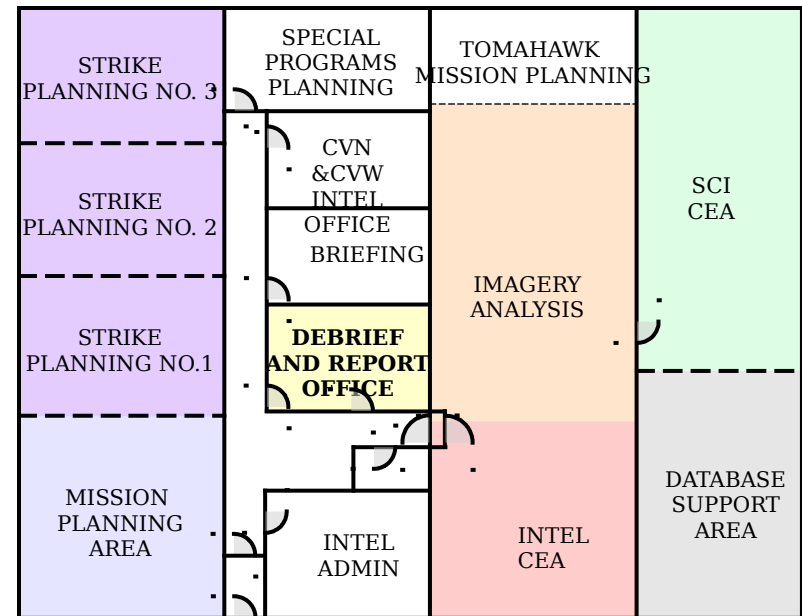


**PI  
F**

**Not to Scale**

## PIF replicates CVIC functionality

- Integrate, test installed configuration
- Test facilities “without the ship”
- Train trainers and CVN 68 cadre
- Reduce risk



**CVIC**



# NSWPC “Prime Directive”

- **Decrease Time-to-Plan**

- **How?**

- ◆ **Integrate CVIC mission planning information/systems**
    - ◆ **Automatically gather as much information prior to strike planning as possible**
    - ◆ **Organize information in a logical manner**
    - ◆ **Automate generation of briefing and kneeboard cards**
    - ◆ **Use previous plans and planning materials as a basis for new ones**

**All Done Within the SPF**



# NSWPC Result

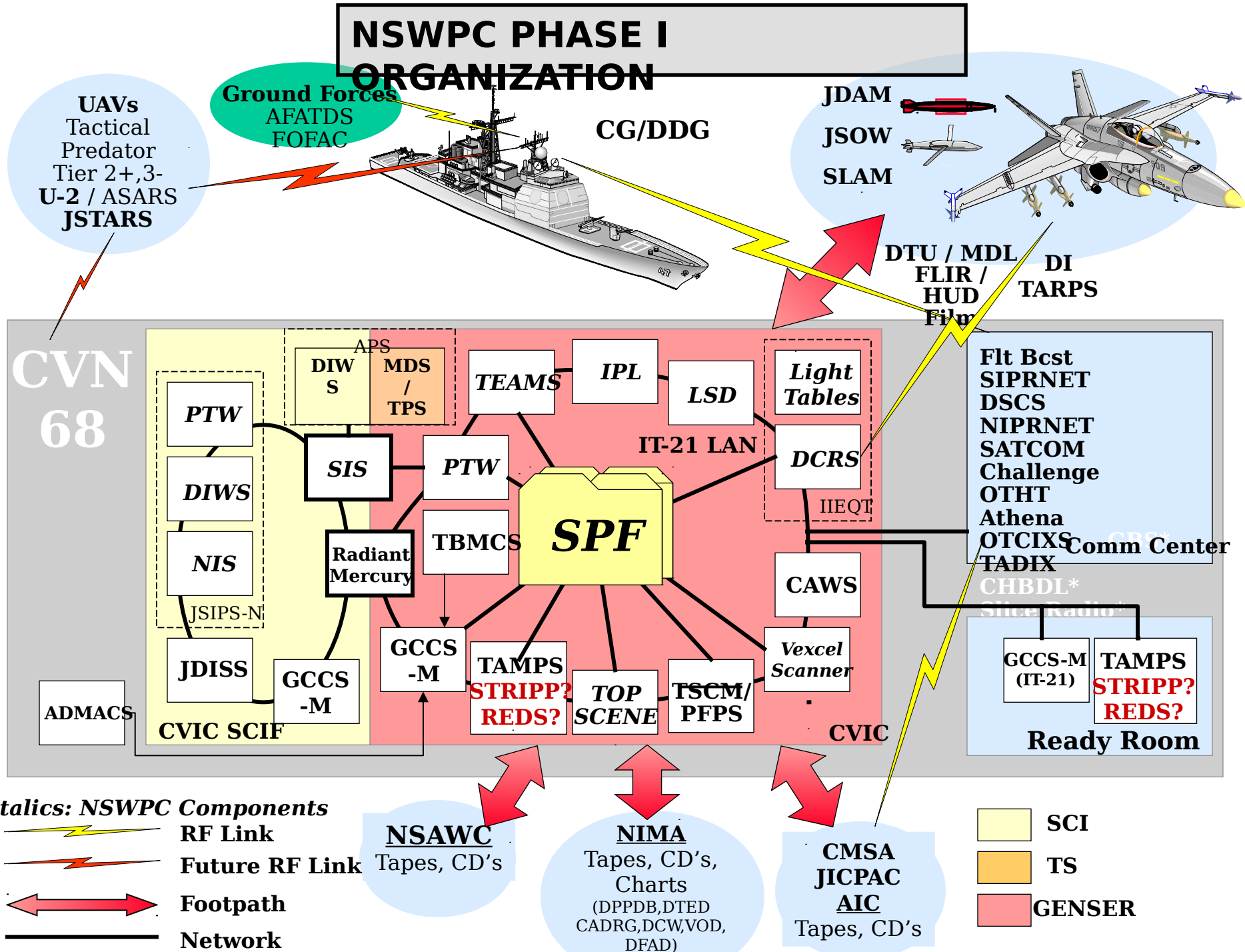
Create a medium for planners and other decision makers plan in a distributive and collaborative manner

- **Strike Planning Folder (SPF)**

- SPF Information Concept underlies future Tool Sets
- Can reside on any server
- Common information interchange formats



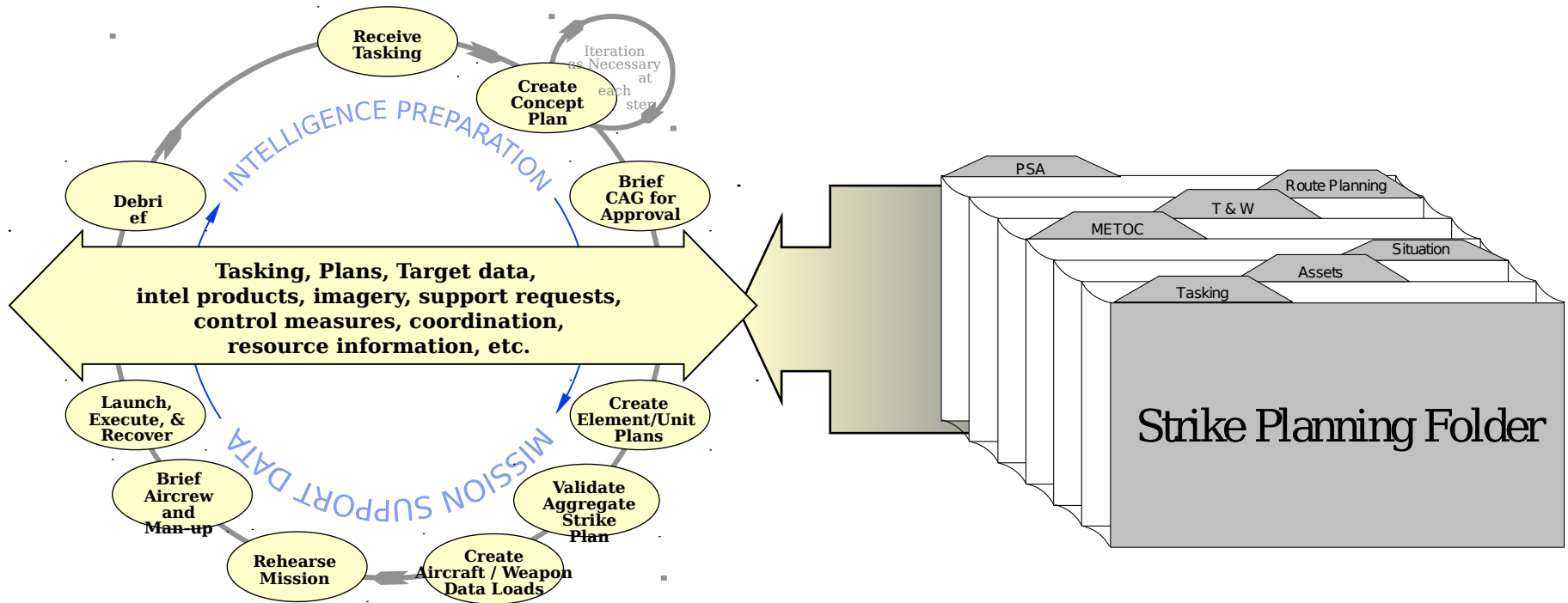
## NSWPC PHASE I ORGANIZATION





# Strike Planning Folder (SPF)

- **System of software, web servers, and databases that collects strike planning information from NSWPC components and other systems and enables users to access that information electronically from their workstations.**



**Addresses Warfighter's #1 problem - information for decision making**

Slide 18



# What SPF Does

- **Gathers, displays, and manages Strike Planning information from stovepipe systems**
- **Provides users a common planning picture**
- **Provides accessibility from any browser-equipped workstation**
  - **SPF is web-designed**
- **Contains two major categories of information:**
  - **Global - Information applicable to all missions (TACPROs, Intel assessments, ROE, reference material, etc.)**
  - **Plan Specific - Mission specific info (Routes, targeting & weaponeering info, briefs, kneeboard cards etc.)**
- **Creates one folder per mission**
  - **Can be created from ATO info, existing folders, or ad hoc (contingency plans)**
  - **Folders can be archived and exchanged with other SPF-equipped ships**



# What SPF Does *not* do

- **SPF does not add new functionality**
  - **SPF does capture the results of conversations between people/machines**
- **SPF does not create data**
  - **SPF does gather data and provides it to strikers prior to planning**
- **SPF does not manipulate data**
  - **SPF acts as a repository of information for strikers to retrieve that information and use it as they see fit**
- **SPF does not change the way planners perform strike planning**
  - **SPF offers a medium for which the strikers can do the job they are trained to do**



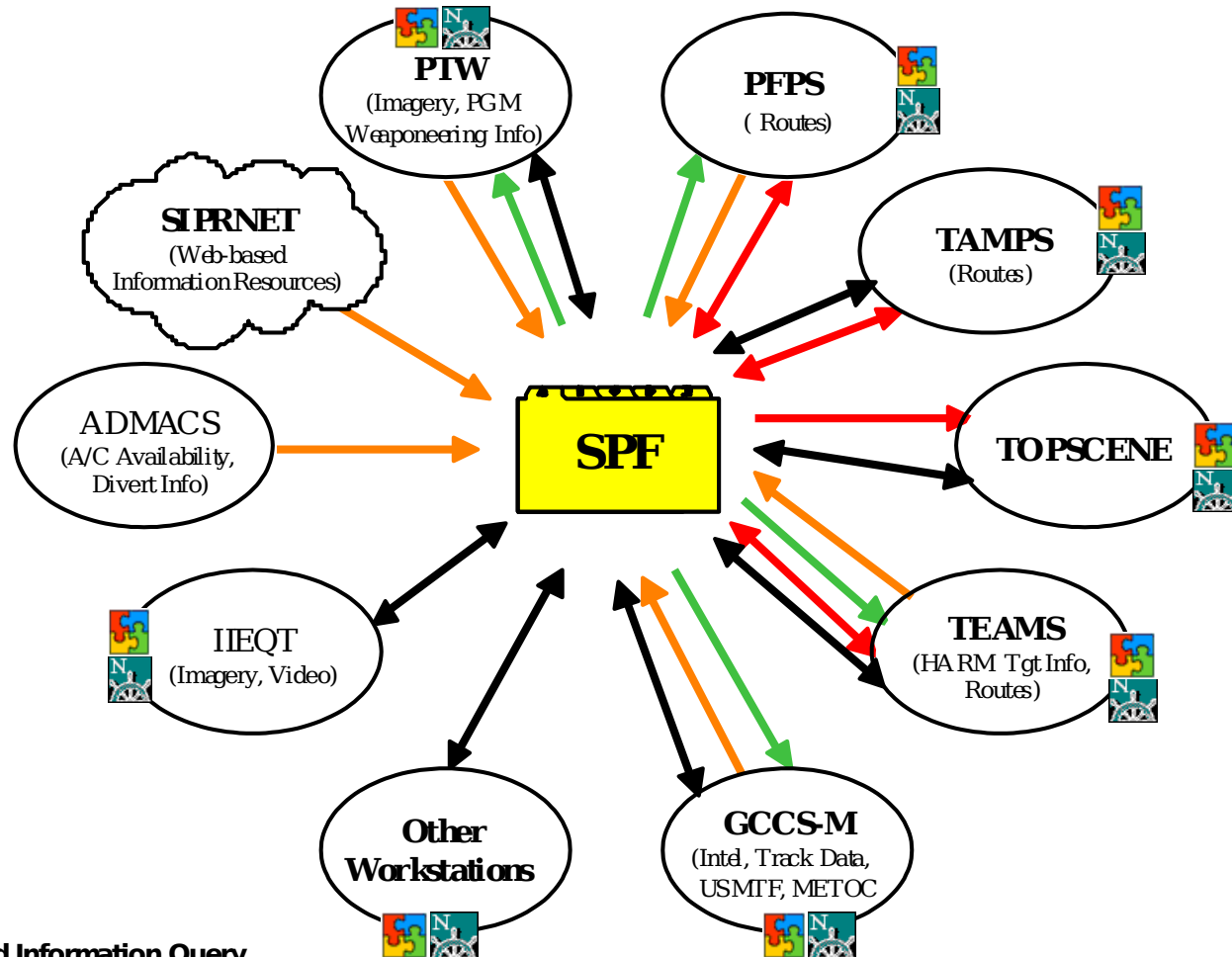
# SPF Design

- **Designed from the start with inputs from NSAWC**
  - **CONOPS development**
  - **Requirement definition and prioritization**
  - **Based on NSAWC Strike Planning information organization**
  - **Follows “Windows-like” interface paradigm as much as possible**

**User inputs to be incorporated into follow-on builds**



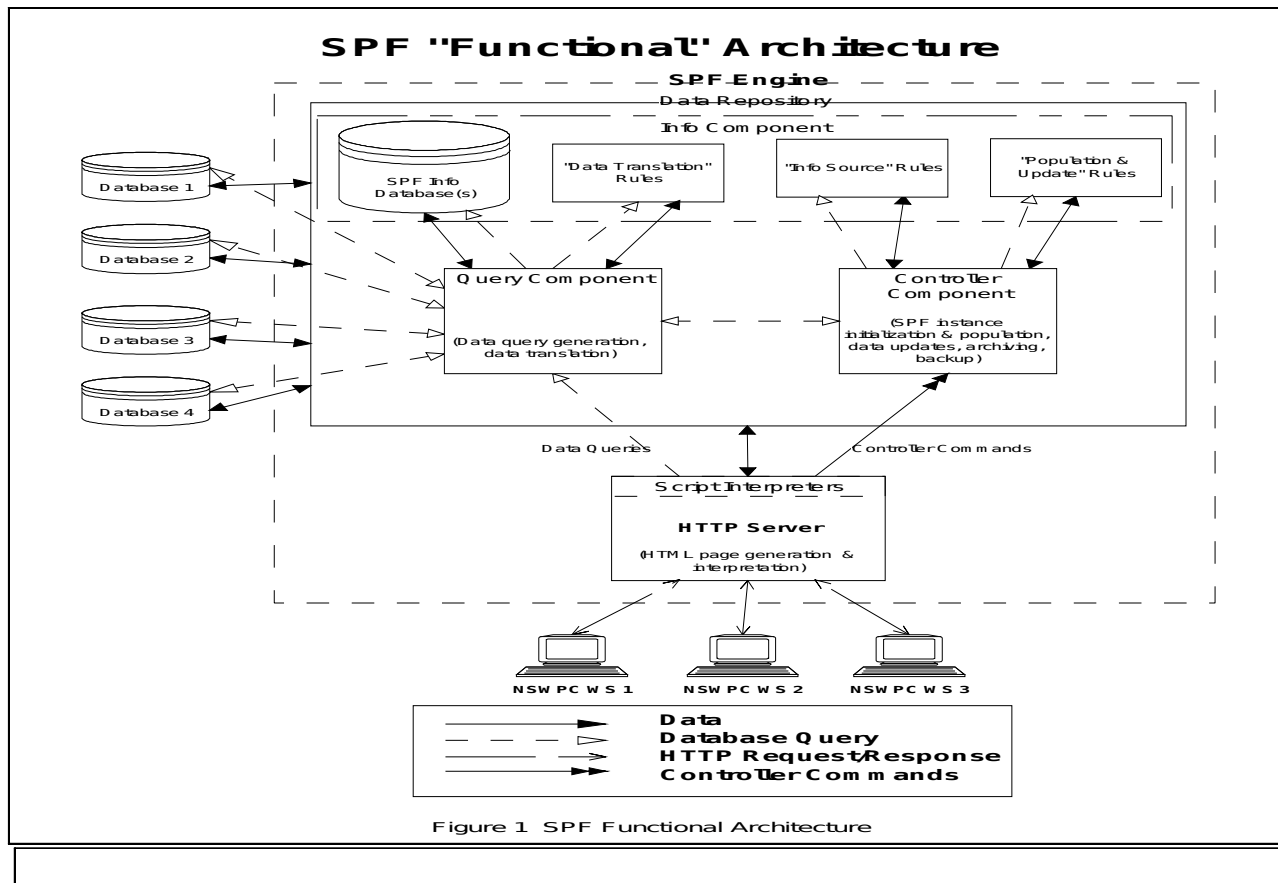
# SPF Information Interfaces



- Routes**
- Automated Information Query**
- Information**
- Files** (Briefs, Images, Video)

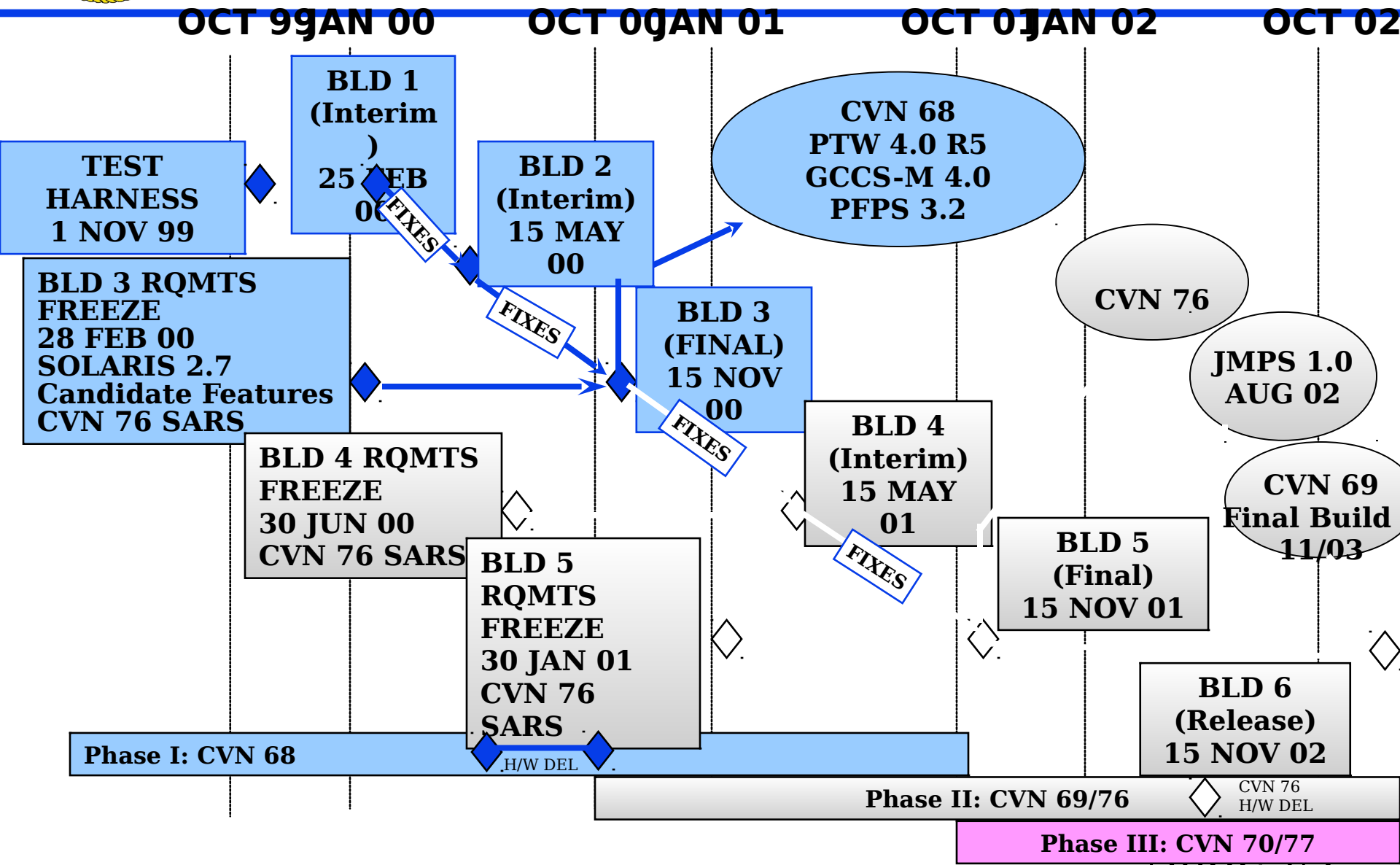


# SPF Functional Architecture





# SPF Build Plans







# Summa ry

**NSWPC goal is to integrate information to plan Naval strike**

- **NSWPC integrates information management technologies now and into the future**
- **SPF Addresses Warfighter's #1 problem-efficient information management for timely decision making by networking existing tools**
- **Heavy dependence on interfaces with current and future mission planning and intelligence gathering sources**

**NSWPC is today's answer to the Information Management tool for the Naval Strike Planner**



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Naval Strike Warfare Planning Center**

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# Backup Slides



# Strike Planning Folder





# SPF Home Page

A screenshot of a Netscape browser window displaying the SPF Home Page. The browser's title bar reads "SPF Home - Netscape". The address bar shows the URL "http://spf02/servlet/home". Below the address bar, there are several bookmark icons labeled "Spf Login", "Msn PIng", "Weather", "Map Support", "Safety/NATOPS", "Navy Dept", "News", and "Hardware". The main content area of the browser has a light grey background and features the title "SPF Home Page" in a large, black, serif font. Below the title, there is a list of links, each with a blue underlined text label and a corresponding description in red text. The links are: "Create Folder" (Creates a new Folder from ATO, Non-ATO, or Existing Folder data.), "Open Folder" (Identifies and opens an existing Folder for viewing or editing.), "Global Information" (Provides direct access to Folder data that is global to every Strike Plan.), "SPF Admin" (Used to edit SPF data and strike team information. Available only to SPF administrators.), "User Preferences" (Used to change the User password and set other preferences.), "Mission Debrief" (Opens the debrief page which contains strike debriefs and templates.), "Help" (Click here for help.), "About" (Displays version information.), and "Exit" (Exits the SPF system and returns to the login page.). At the bottom of the page, there is a copyright notice: "Copyright © 1999, 2000 BAE SYSTEMS United States Government Unlimited Rights". The browser's status bar at the bottom shows "Document: Done". The Windows taskbar at the very bottom includes the Start button, a file explorer window titled "E:\spf\_screensnaps", the Netscape window, and a Microsoft PowerPoint window titled "Microsoft PowerPoint - [scr...". The system clock in the bottom right corner shows "1:43 PM".



# Air Tasking Order Request

test3 - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: http://spf02/servlet/folder

Spf Login Msn Plng Weather Map Support Safety/NATOPS Navy Dept News

**test3**

test3

- Description
- Origination
- Change Folder Status
- Area of Interest
- Air Tasking Order**
- Strike Team
- Notify Team Members
- Import From Existing
- Save As
- Final Brief
- Kneeboard Cards
- Tasking
- Assets
- Situation
- METOC
- Targeting & Weaponneering
- Route Planning
- Post Strike Analysis

**Create Assistant**

UniqueName	Status
Air Tasking Order	not executed
Description	not executed
Target Location(s)	not executed
Target Information Request	not executed

☐ Hide for this Session Dismiss

**Select ATO for Folder Population**

DTG	OPER/EXER Name	Begin	End	AsOf	Change
011230Z MAR 1999	BASELINE 99	010001Z MAR 1999	302330Z MAR 1999	161545Z MAR 1999	--
011430Z MAR 1999	ATO TECH REVIEW ...	010600Z OCT 1999	020600Z OCT 1999	302100Z SEP 1999	--
011530Z MAR 1999	DESERT WIND	010600Z OCT 1998	020559Z OCT 1998	302100Z SEP 1998	CHG 0

**ATO:** VZCZC0SS001  
 RAAUZYUW RUEN0SS0001 0630006-UUUU--ROSSCVA.  
 ZNR UUUUU  
 R 030006Z MAR 00  
 FM NCTSI  
 TO TEST DEVICE  
 BT  
 UNCLAS  
 OPER/BASELINE 99//

<Prev Next> Cancel

**Last Modified:**  
**Last Modified by:**  
**Originator:**

**Folder Status:** None

Applet com.baesystems.applet.DynamicAppletLoader started

Start E:\spf\_screenshots test3 - Netscape Microsoft PowerPoint - [scr...]

1:49 PM



# Actual ATO

test3 - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: http://spf02/servlet/folder

Spf Login Msn Ping Weather Map Support Safety/NATOPS Navy Dept News Hardw

test3

test3

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- Post Strike Analysis

Include From ATO

Filters: Country: Service: Unit:

DESSERT WIND

- Package: AN
- Package: AAF
- Package: -
- Mission: 22336651
- Mission: 11223344

Add >>

<<Remove

DESSERT WIND

- Package: AN

Raw Ato

```
EXER/DESSERT WIND//
MSGID/ATO/USCENTCOM/ATO A/OCT/CHG/0//
AKNLDG/YES//
TIMEFRAM/FROM: 010600Z0CT1998/T0: 020559Z0CT1998/ASOF: 302100ZSEP1998//
HEADING/TASKING//
TSKCNTRY/US//
SVCTASK/N//
TASKUNIT/CVN68 VFA-22/ICA0:NMTZ//
AMSN DAT/01111/-/AN/MC/INT//
MSNACFT/3/ACTYP: FA18C/TALON 11/2GBU/-/20111/30111//
ARINFO/APPLE 20/4010A/34010/NAME: BLUE TRACK/200/ARCT: 010815Z
/NDAR: 010845Z0CT/KLBS: 30.0/PFREQ: 343.3/SFREQ: 277.8/ACTYP: KC10/CDT/2
/TNKR: 1/18-81/2-2-3//
1MSNRTE
```

<Prev Next> Cancel

Last Modified:  
Last Modified by:  
Originator:

Folder Status: None

Applet com.baesystems.applet.DynamicAppletLoader started

Start PFPS Task Manager (Pres... Microsoft PowerPoint - [scr... test3 - Netscape Microsoft Office Shortcut Bar

10:47 AM





# SPF Area of Interest

test3 - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: http://spf02/servlet/folder

Spf Login Msn Ping Weather Map Support Safety/NATOPS Navy Dept News Hardw

test3

test3

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- Import From Existing
- Save As
- Final Brief
- Kneeboard Cards
- Tasking
  - SPINS
  - General
    - Strike Objective
    - Target Location(s)
    - Target Information Requ
    - Strike Package Tasking
- Briefs
- Assets
- Situation
- METOC
- Targeting & Weaponneering
- Route Planning
- Post Strike Analysis

**Area Of Interest Coordinates**

Target Location: Latitude 35:47:37.9N (DD:MM:SS.TH)  
Longitude 047:38:15.0E (DD:MM:SS.TH)

Ship Location: Latitude 34:46:59.9N (DD:MM:SS.TH)  
Longitude 046:00:00.0E (DD:MM:SS.TH)

Margin 100.0 (NM)

**Area Of Interest Region**

Upper Latitude 37:27:47.4N (DD:MM:SS.TH)  
Left Longitude 043:15:47.8E Right Longitude 050:22:27.1E  
Lower Latitude 33:06:50.4N (DD:MM:SS.TH)

OK Cancel

Last Modified: 031547Z MAR 2000  
Last Modified by: pschmidt  
Originator:

Folder Status: In Work

Applet com.baesystems.applet.DynamicAppletLoader started

Start PFPS Task Manager (Pres... Microsoft PowerPoint - [scr... test3 - Netscape Microsoft Office Shortcut Bar 10:50 AM

Create Assistant

UniqueName	Status
Target Location(s)	completed
Target Information Request	completed
Area of Interest	completed
MIDB Data Update	not executed

☐ Hide for this Session Dismiss





# SPF MIDB Data Update

**test3 - Netscape**

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://spf02/servlet/folder>

Spf Login Msn Ping Weather Map Support Safety/NATOPS Navy Dept News Hardw

**test3**

Home IFL ?

**test3**

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  - SPINS
    - General
      - Strike Objective
      - Target Location(s)
      - Target Information
      - Strike Package Ta
- Briefs
- Assets
- Situation
  - MIDB Data Update**
  - Intel Links
  - Friendly Situation/Disp
  - Enemy Situation/Disp
  - Briefs
- METOC
- Targeting & Weaponneer

**MIDB Data Update**

Do Full Query of MIDB and save to SPF:

☒ EW/GCI Locations ☒ Observers and Reporting Posts

☒ SAM/AAA Types ☒ Ground Forces

☒ Airbase Locations ☒ All Of The Above

OK

**Create Assistant**

UniqueName	Status
Target Location(s)	completed
Target Information Request	completed
Area of Interest	completed
MIDB Data Update	not executed

☐ Hide for this Session Dismiss

Applet com.baesystems.applet.DynamicAppletLoader started

Start PFPS Task Manager (Pres...) Microsoft PowerPoint - [scr...] test3 - Netscape Microsoft Office Shortcut Bar 10:51 AM



# MIDB Query Response

test3 - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: http://spf02/servlet/folder

Spf Login Men Ping Weather Map Support Safety/NATOPS Navy Dept News Hardw

test3

test3

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      - Target Location(s)
      - Target Information
      - Strike Package Ta
- Briefs
- Assets
- Situation
  - MIDB Data Update**
  - Intel Links
- Friendly Situation/Disp
- Enemy Situation/Disp
- Briefs
- METOC
- Targeting & Weapons

MIDB Data Update

Do Full Query of MIDB and save to SPF:

☒ EW/GCI Locations ☒ Observers and Reporting Posts

☒ SAM/AAA Types ☒ Ground Forces

☒ Airbase Locations

OK

Query Results

EW/GCI: 142 records replaced existing 0 records in SPF database.  
SAM/AAA: 371 records replaced existing 0 records in SPF database.  
Airbase: 78 records replaced existing 0 records in SPF database.  
Observers: 4 records replaced existing 0 records in SPF database.  
Ground Force: Could not get data from MIDB. No change to SPF database.

OK

Applet com.baesystems.applet.DynamicAppletLoader started

Start PFPS Task Manager (Pres... Microsoft PowerPoint - [scr... test3 - Netscape Microsoft Office Shortcut Bar

10:55 AM

Create Assistant

UniqueName	Status
Target Location(s)	completed
Target Information Request	completed
Area of Interest	completed
MIDB Data Update	not executed

☐ Hide for this Session Dismiss



# SPF Strike Team Info

**test3 - Netscape**

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://spf02/servlet/folder>

Spf Login Msn PIng Weather Map Support Safety/NATOPS Navy Dept News Hardw

**test3**

Home IFL ?

**test3**

- Description
- Origination
- Change Folder Status
- Area of Interest
- Air Tasking Order
- Strike Team**
- Notify Team Members
- Import From Existing
- Save As
- Final Brief
  - Final Brief Templates
  - STK\_BRF.ppt
- Kneeboard Cards
  - Kneeboard Card Tem
  - mia\_knbrcrds.xls
- Tasking
  - SPINS
  - General
    - Strike Objective
    - Target Location(s)
    - Target Information
    - Strike Package Ta
  - Briefs
- Assets
- Situation
  - MIDB Data Update
  - Intel Links
- Friendly Situation/Dis

**Strike Team Composition**

Last Name	First Name	Rank	Role	Squadron	Permission
Schmidt	Paul		Strike Leader	Unknown	Admin
Lakes	Elvold		Element Leader	Unknown	Admin
Ifarraguerri	Carlos		Element Leader	Unknown	Admin
Flowers	Tony		Strike Team Member	Unknown	Admin
Smith	Tammy		Intelligence Personnel	Unknown	Admin

**DETAILED**

**Name:** Smith, Tammy

**Role:** Intelligence Personnel

**Last Modified:** 031557Z MAR 2000

**Last Modified by:** pschmidt

**Originator:** pschmidt

**Folder Status:** In Work

**Create Assistant**

UniqueName	Status
Area of Interest	completed
MIDB Data Update	completed
Strike Team	completed
Notify Team Members	not executed

☐ Hide for this Session Dismiss

Document: Done

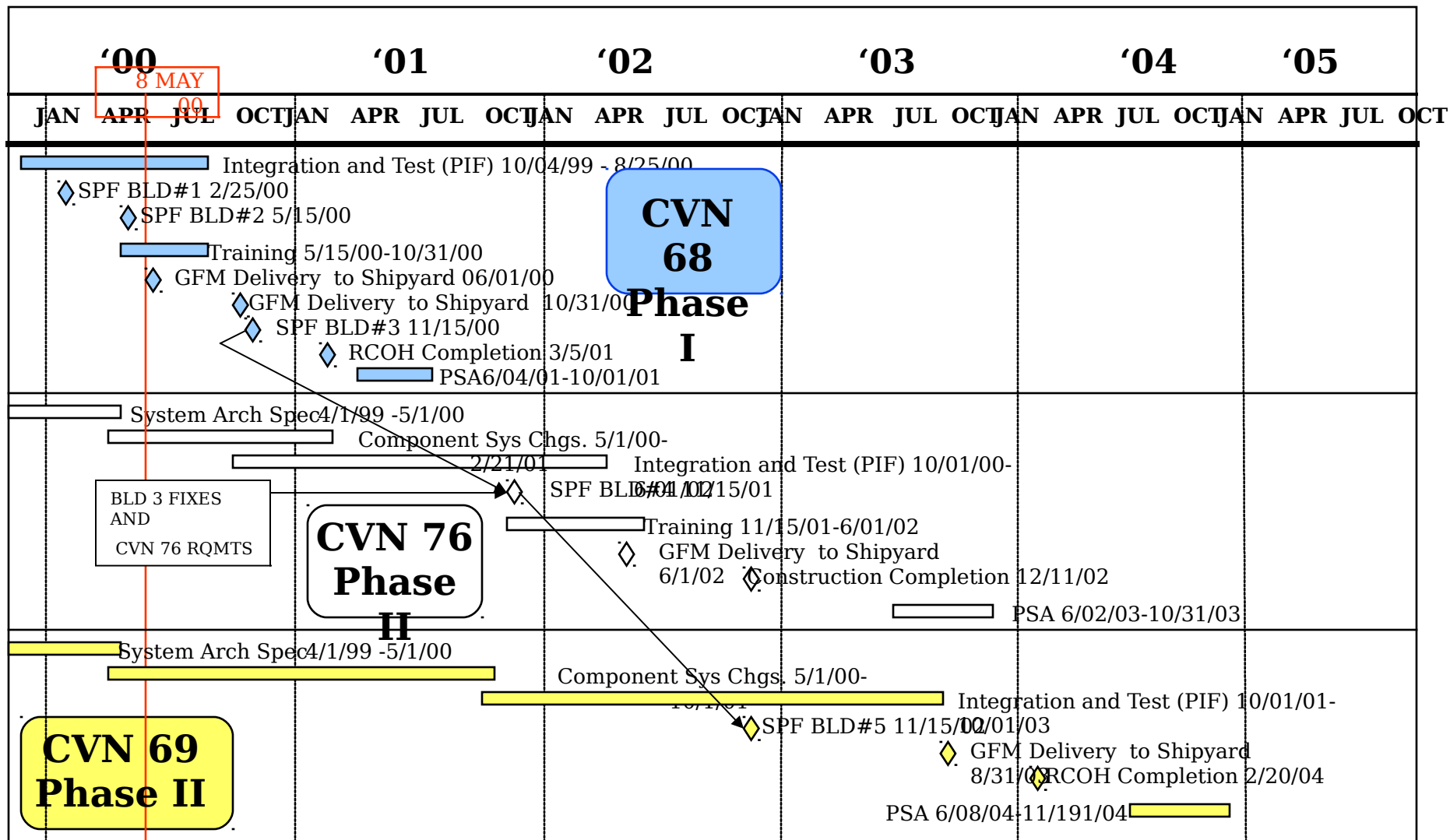
Start PFPS Task Manager (Pres...) Microsoft PowerPoint - [scr...] test3 - Netscape Microsoft Office Shortcut Bar

11:00 AM



# NSWPC

## Current Schedules





# **SPF - PTW 4.0 Connection**

- **Rapid PGM targeteering and weaponeering is one of the most important issues faced today**
- **GENSER PTW 4.0 hosts SPF web server**
  - **Targeting/PGM weaponeering and mission planning information co-located**
  - **Large storage capacity (How many SPFs need to be held?)**
  - **Enterprise-strength server hardware**



# **Proposed Future SPF Capabilities**

- **Improve shipboard production capabilities**
- **Integration with Fleet Preferred Planning Tools**
- **Automate information management**
- **Install on all large deck ships**
- **Extend SPF to other warfare areas (NSFS, ARG/MEU, etc.) and Services for better communication & coordination**
- **Fleet centralized repository for Strike Plans**
- **All Builds follow NSAWC planning process**



# Automate Info Mgmt to Accelerate Planning and Facilitate Rapid Re-Targeting

- **At 26/27 Oct 99 Conference all aircrew stated a requirement need for:**
  - **Automatic** gathering of information at tasking
  - **Automatic** update of information during planning
  - **Automatic** flow-down correction of information (change a turnpoint on a route planner, and the change is reflected in the kneeboard cards)
  - **Automatic** fusion of Intel
  - **Automatic** generation of kneeboard cards & briefing slides
  - **Automatic** parsing of standard messages (ATO, ACO)
  - **Automatic** generation of MISREPS, etc., from online debriefing



# SPF Build 1

- **Delivered February 28, 2000**
- **Includes all SPF Build 0 functionality**
- **Includes all Test Harness functionality**
- **Adds the MIDB interface to access threat information**
- **Adds the TMS interface to access Blue Force information**
- **Adds capability to interface and process CRD formatted files**
- **Implements limited automatic pull of information**

**Build 1 Verification Testing 2/1/00-5/15/00**





# SPF Build 2

- **Delivery Date May 15, 2000**
- **Includes all SPF Build 1 functionality**
- **Adds Archiving function**
- **Adds "Save as" function**
- **Adds e-mail capability**
- **Adds external SPF interfaces, including ADMACS, PTW, MetCast, and remaining USMTF messages**

**Build 2 Verification Testing 5/16/00-10/04/00**



# SPF Build 3

- **Delivery Date November 15, 2000**
- **Includes all SPF Build 2 functionality**
- **Solaris 2.7 UNIX Operating System**
- **Adds fleet desired items from “Candidate Features List” (e.g.map and overlay mgmt,export overlay file, diagnostics, template-to-product creation, etc.)**

**Build 3 Verification Testing 10/05/00-3/02/01**



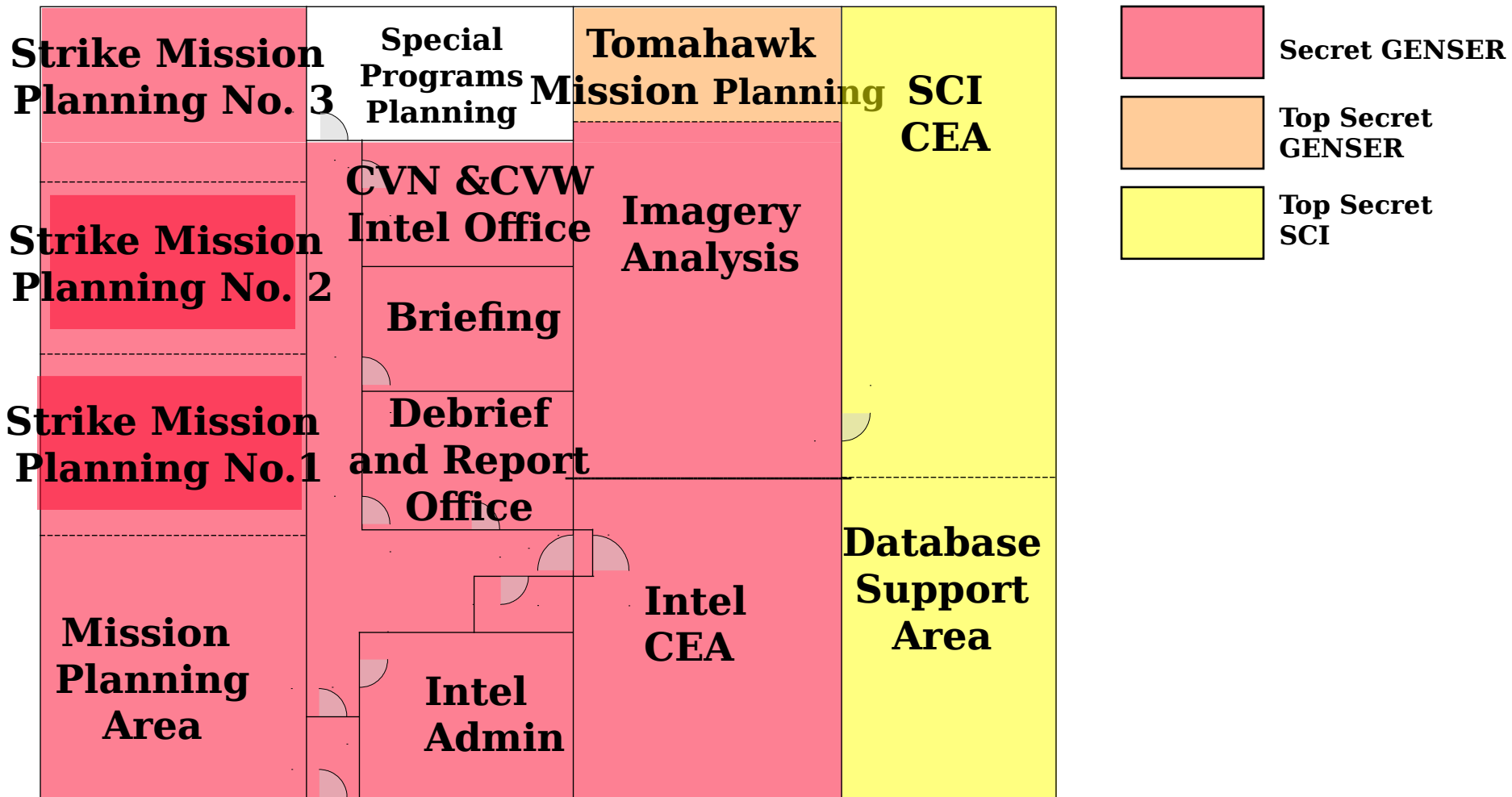
# SPF Build 4

- **Delivery Date November 15, 2001**
- **Includes all SPF Build 3 functionality**
- **Includes CVN-76 System Architecture Requirements (SARS)**
- **Requirements freeze July 30, 2000**

**Build 4 Verification Testing TBD**



# CVIC Layout



# Equipment

